

Claims:

1. An apparatus for killing microorganisms in an air conditioning system, said air conditioning system having at least one duct for the passage of air therethrough, said apparatus comprising:

250 connecting means for connecting said apparatus to a main power source;
a fluorescent light ballast configured to convert 60 hertz to 20-100 kilohertz; and
an electrical connector, coupled to said fluorescent light ballast and adapted to receive a UV-C lamp, and wherein said electrical connector is coupled to said fluorescent light ballast via coupling means such that the electrical connector may be disposed remote from said connecting means and said fluorescent light ballast.

2. The apparatus of claim 1 further comprising a suppressor ballast coupled to said connecting means for suppressing any electrical surge when the apparatus is activated.

3. The apparatus of claim 2 wherein the fluorescent light ballast and said suppressor ballast are disposed in a housing, said housing comprising mounting means for mounting said housing on a flat surface and wherein said housing has holes therethrough to provide ventilation.

4. The apparatus of claim 1 wherein the air conditioning system is a residential air conditioning system.

5. The apparatus of claim 1 further comprising
means for de-energizing the lamp in response to a signal change and
indicator means for indicating when the lamp is energized.

6. An apparatus for killing microorganisms in an air conditioning system, said air conditioning system having at least one duct for the passage of air therethrough, said apparatus comprising:

a control relay;
a plurality of fluorescent light ballasts configured to convert 60 hertz to 20 – 100 kilohertz; and

a plurality of electrical connectors, wherein each of said plurality of electrical connectors is coupled to one of said plurality of fluorescent light ballasts and is adapted to receive a UV-C lamp, and wherein said electrical connectors are coupled to said fluorescent light ballasts via coupling means such that the electrical connectors may be disposed remote from said control relay and said fluorescent light ballasts.

7. The apparatus of claim 6 further comprising a suppressor ballast coupled to said control relay for suppressing any electrical surge when the apparatus is activated.

8. The apparatus of claim 6 further comprising a plurality of UV-C lamps designed for mating with said electrical connectors and a plurality of reflectors arranged so that one of said plurality of reflectors is disposed at least one end of each of said plurality of lamps.

9. The apparatus of claim 6 wherein the plurality of connectors, lamps and reflectors are disposed in said duct, and wherein said plurality of reflectors spin as air flows through said duct.

10. The apparatus of claim 6 wherein the fluorescent light ballasts are 220 volt ballasts.

11. The apparatus of claims 6 further comprising
means for de-energizing the lamps in response to a signal change and
indicator means for indicating when one or more of the plurality of lamps are energized

12. The apparatus of claim 11 wherein the indicator means comprises an LED indicator light coupled to each one of said plurality of fluorescent light ballasts to indicate whether power is going to each of said fluorescent light ballasts.

13. The apparatus of claim 6 further comprising a safety switch operatively coupled to said control relay.

14. The apparatus of claim 13 wherein the UV-C lamps are disposed inside said duct, and a door is disposed on said duct to allow access to said lamps and wherein said safety switch comprises a door jamb light switch which is actuated when said door is opened.

15. The apparatus of claim 13 wherein the UV-C lamps are disposed inside said duct, and a door is disposed on said duct to allow access to said lamps and wherein said safety switch

comprises a switch that allows the UV-C lamps to be energized so long as the safety switch is depressed or the door is closed.

16. The apparatus of claim 13 wherein the safety switch comprises a micro-switch.

17. The apparatus of claim 13 wherein the safety switch comprises a momentary contact safety switch.

18. The apparatus of claim 6 wherein the electrical connectors, said UV-C lamps and ~~said~~ reflectors are disposed inside said duct and said control relay and said plurality of fluorescent light ballasts are disposed remotely from said air conditioning system. *CAE cl 8*

19. The apparatus of claim 6 wherein the electrical connectors, said UV-C lamps, ~~said~~ reflectors said control relay and said plurality of fluorescent light ballasts are disposed inside the air conditioning system. *AB cl 8*

20. The apparatus of claim 6 further comprising an aluminum cover.

more
21. The apparatus of claim 6 wherein the air conditioning system is a commercial air conditioning system.

22. The apparatus of claim 6 further comprising an exhaust fan.

23. A kit for a customized air purification device comprising:

a cover;

a control relay;

a safety switch;

a plurality of fluorescent lamp ballasts;

a plurality of terminal strips;

a plurality of LED indicator lights;

a plurality of electrical connectors; and

one or more components selected from the group consisting of a plurality of UV-C lamps, a plurality of connecting wires, a plurality of multi-faceted tin reflectors, a reflective tape, a free-standing stand, a plurality of self tapping aluminum screws, a plurality of UV-C lamps, a plurality of concrete screws and a Plexiglas door.

24. The kit of claim 23 further comprising a suppressor ballast.

25. The kit of claim 23 further comprising an aluminum coil and means for fastening said aluminum coil to an interior surface of a duct.

26. The kit of claim 23 wherein the cover comprises a custom aluminum cover.

27. The kit of claim 23 wherein the safety switch comprises a momentary contact safety switch.

28. The kit of claim 23 wherein the device is designed for use in a commercial air conditioning system.

29. An method for killing microorganisms in an air conditioning system, said air conditioning system having at least one duct for the passage of air therethrough, said method comprising:

providing connecting means for connecting to a main power source;

providing a fluorescent light ballast coupled to said suppressor ballast, said fluorescent light ballast configured to convert 60 hertz to 20-100 kilohertz; and

providing an electrical connector, coupled to said fluorescent light ballast and adapted to receive a UV-C lamp, and wherein said electrical connector is coupled to said fluorescent light ballast via coupling means such that the electrical connector may be disposed remote from said connecting means, said suppressor ballast and said fluorescent light ballast.

30. The method of claim 29 further comprising the steps of

providing means for de-energizing the lamp in response to a signal change and
providing indicator means for indicating when the lamp is energized.

31. The method of claim 29 further comprising providing a suppressor ballast coupled to said connecting means for suppressing any electrical surge when the apparatus is activated.

32. The method of claim 29 further comprising providing a housing, wherein said fluorescent light ballast is disposed in said housing, said housing comprising mounting means for mounting said housing on a flat surface and wherein said housing has holes therethrough to provide ventilation.

33. The method of claim 29 wherein the air conditioning system is a residential air conditioning system.

34. The method of claim 29 wherein the air conditioning system is a commercial air conditioning system.

34. The method of claim 29 wherein the air conditioning system is a commercial air conditioning system.